

ROYAL ASTRONOMICAL SOCIETY.

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No. 3.

Rev. BADEN POWELL, V.P., in the Chair.

John Robinson Maclean, Esq., 17 Great George Street;
Col. Baron de Rottenburg, C.B., Toronto, Upper Canada;
Chas. V. Walker, Esq., Redhill; and
Nathaniel Beardmore, Esq., 30 Great George Street,
were balloted for and duly elected Fellows of the Society.

The Council desire to make known to Directors of Foreign Observatories, and to other persons who may have claims to the work, that they have still in stock several copies of Mr. Johnson's *St. Helena Catalogue of Southern Stars*. Applications to be addressed to the Secretaries.

New Comet.

(*Letter from W. C. Bond, Esq. Director of the Observatory of Harvard College, to Mr. Carrington.*)

"A faint comet was discovered here in the evening of the 4th instant at 7^h 30^m P.M., by Mr. H. P. Tuttle.

"The following places of it have been obtained:—

58 *Rev. W. R. Dawes, on the Measurement of Position-Angles*

1858.	Camb. M.S.T.			Comet's Ap. R.A.			Comet's Ap. Decl.		
	h	m	s	h	m	s	°	'	"
Jan. 4	9	31	55.8	23	42	30.30	+	39	41 9.1
	7	7	21 14.9	23	55	45.43	+	37	3 33.2
	8	7	18 23.6	0	0	16.58	+	3	6 47.0

Observatory of Harvard College, Cambridge, U.S.
Jan. 11th, 1858.

Previous to the arrival of the intelligence of Mr. Tuttle's discovery in Europe, the comet was discovered by Dr. Bruhns at Berlin on the 11th of January.

The following approximate position was obtained:—

9^h 20^m M.T. Berlin.

R.A. 0^h 53^m

N.P.D. 64° 40'

On the Measurement of the Position-Angles of Double-Stars with the Divided-glass Double-image Micrometer. By the Rev. W. R. Dawes.

The usual method of measuring the position-angle of a double-star with a double-image micrometer, is by bringing the four stars composing the two images into a line, the components being placed at equal distances, whereby the double distance and the reading for position are obtained at the same time. The angle may thus be measured with considerable accuracy, *provided the images are round and well defined*, as in the double-image *crystal* micrometer, where the separation of the images is produced by the principle of double refraction in the crystal. Yet even in this, I believe that a more certain mode may be employed. But where the duplicity of the image is produced by the division of a lens, and, consequently, each of the images is formed by only one-half of the object-glass, the distortion of the image is so great (increased in bright stars by the coloured fringes in opposite directions) that, lying as it does at right angles to the direction of separation, a really accurate measure of the position-angle is impossible; and nearly all that can be hoped for is to place the images with sufficient correctness for measuring the double distance. This forms so serious a drawback to the use of such an instrument in double-star observations, that a statement of a method of observation by which the difficulty may be completely removed, and which I have satisfactorily employed for more than two years, will not, I trust, be unacceptable to the Society.

My plan is this: Two very fine wires, or very stout spider's webs, are placed parallel to each other, with their interior edges at a convenient distance apart (about eight or ten seconds) in the focus of the eye-glass or positive eye-piece. These are intended for the measurement of position-angles, by placing the stars